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ABSTRACT

The 39 Illinois public community college districts currently offer 3,467 individual curricula within 258 discrete occupational fields. Within the past 18 months, slightly more curricula have been withdrawn then added, with the office occupations category showing a net gain of 36 curricula and the categories of home economics and protective services each showing a net loss of 17 curricula. Opening fall term enrollment of students declaring an occupational curriculum has remained relatively constant at approximately one-third of the total enrollment for the past several years. The reported number of associate degree graduates increased by nearly 20% from fiscal year (FY) 1982 to FY 1983, while the total number of occupational program completers increased 12%. In 1983, the Generic Course List was developed and implemented. All courses were reexamined and some were reclassified consistently from college to college. While the number of courses classified as occupational declined somewhat due to the reclassification in conjunction with the development of the Generic Course List, the number of credit hours generated in the three occupational/vocational funding categories has increased an average of 28% from FY 1980 to FY 1983. The unit cost per credit hour also increased during this same period, but at a lesser rate, from a high of 11% in the business/service category to a low of 7% in the health funding category. Data tables are presented throughout this report, which analyzes the current status of and short-term trends in occupational programs in the Illinois public colleges. (Author/LAL)

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ILLINOIS COMMUNITY COLLEGE OCCUPATIONAL EDUCATION:

STATUS AND TRENDS

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ILLINOIS COMMUNITY COLLEGE BOARD

April 1984

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ILLINOIS COMMUNITY COLLEGE OCCUPATIONAL EDUCATION: STATUS AND TRENDS
April 1984

The Illinois Community College Board (ICCB) approves all "units of instruction, research, and public service" offered by the 39 Illinois public community college districts. The 52 colleges within these 39 districts are "comprehensive" in that they provide the first two years of baccalaureate education, a variety of occupational education programs, and general studies opportunities for the citizens within their district.

The purpose of this report is to describe the current status of and short-term trends in occupational programs statewide. The report will show the number and variety of programs offered, the changes in programs over the past eighteen months, the number of students enrolled in and completing programs annually, the number of courses offered and credit hours produced, and the costs of offering occupational programs. These data will serve as a baseline from which long-range trends can be determined in the future.

Occupational Curricula

An approved occupational program is a curriculum consisting of a sequence of courses that leads to an associate degree (two years of full-time study), a certificate of one year of study or more, or a certificate of less than one year of study. Each college also offers a variety of "vocational skills" courses that are not part of but are related to its approved occupational curricula in order to provide upgrading, retraining, or review of occupational skills for entry or re-entry into the labor force. In addition, all colleges provide remedial and adult basic and secondary education courses in the basic skills of reading, writing, and mathematics for those who need to upgrade their skills in these areas.

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As indicated in Table 1 on the following page, the Illinois public community colleges have been approved to offer associate degree and certificate curricula to prepare for entry into 258 discrete occupational fields. At the associate degree level, which requires a minimum of 60 semester credit hours, the colleges offer 1,302 curricula, while 2,165 curricula are offered at the certificate level, for a total of 3,467 individual curricula. The greatest number of individual curricula at both levels is offered in the office occupations category, which includes both data and word processing, as well as accounting/bookkeeping, and a variety of secretarial specializations. The second greatest number of curricula offered at the associate degree level is in the area of precision production, which includes drafting, welding, and a variety of machine tool operations, while the second greatest number of curricula offered at the certificate level is in the mechanics and repairers category, which includes auto mechanics and office and industrial machine mechanics and repairers.

Table 1

NUMBER OF OCCUPATIONAL CURRICULA BY CATEGORY

Occupational Category	Number of Approved Curricula, 2/84 Discrete Curricula*	Associate Degree Curricula	Certificate Curricula	Number Added/Withdrawn 7/82 to 2/84 Curricula Added	Curricula Withdrawn	Net Gain/ Loss
01 Agriculture	16	82	101	10	9	+ 1
03 Forestry/Wildlife	3	3	1	2	1	+ 1
06 Business Management	17	148	208	12	23	-11
07 Office Occupations	24	252	449	71	35	+36
08 Marketing & Distrib.	23	61	109	14	14	0
09 Advertising/Journalism	3	10	5	0	1	- 1
10 Communications Tech.	4	11	11	3	3	0
12 Barbering/Cosmetology	2	4	29	0	2	- 2
15 Engineering Tech.	29	157	141	16	28	-12
17 Allied Health	34	93	132	19	22	- 3
18 Assoc Degree Nursing	1	38	0	0	1	- 1
20 Home Economics Occupations	16	42	94	3	20	-17
22 Legal Assisting	1	2	2	2	0	+ 2
23 Technical Writing	1	3	3	0	0	0
25 Library Assisting	1	13	12	0	2	- 2
31 Recreation Management	2	12	14	0	1	- 1
41 Science Technology	2	1	2	0	1	- 1
43 Protective Services	9	93	161	15	32	-17
44 Public/Social Services	2	19	22	1	7	- 6
46 Construction Trades	13	31	85	12	17	- 5
47 Mechanics/Repairers	24	83	263	43	29	+14
48 Precision Production	25	131	300	27	41	-14
49 Transportation Occup.	4	9	19	0	2	- 2
50 Commercial Music/ Theatre	2	4	5	0	2	- 2
Total	258	1,302	2,165	250	293	-43

*Number of different six-digit Classification of Instructional Programs (CIP) Codes.

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Statewide, community college curricula are -- and need to be -- in a constant state of transition. Since July 1982, 250 curricula have been approved either as new units of instruction or as reasonable and moderate extensions of previously approved curricula. During this same period, 293 curricula have been discontinued as student and employer demand diminished. Since December 1980, the total number of individual occupational curricula has declined from 3,665 to 3,467, a decline of 5.4 percent.

A comparison of the curriculum addition and withdrawal columns in Table 1 shows that only five occupational categories experienced more additions than withdrawals: agriculture, forestry/wildlife, office occupations, legal assisting, and mechanics/repairers. Two categories -- marketing/distribution and communications technologies -- experienced an equal number of additions and withdrawals. The greatest absolute and net number of curricula added since July 1982 is in office occupations, primarily data- and word-processing curricula, while the greatest absolute number of withdrawals has been in the precision production category. The home economics occupations and protective services categories each show a net loss of 17 curricula statewide.

Recent employment projections published by the Illinois Bureau of Employment Security (IBES) point to the growth in the office occupations and mechanics/repairers categories. For example, IBES predicts 16,524 annual openings for secretaries, general office clerks, and typists combined and indicates a growth rate of 29 percent and 13 percent for computer/peripheral equipment operators and computer programmers, respectively, for the decade. The growth occupations in the mechanics and repairers category include auto mechanics and office machine repairers.

Often, predicted growth and decline occupations are found within the same two-digit curriculum category. For example, the need for corrections officers is increasing at a faster rate than police officers, especially in those areas of the state slated for new or expanded correctional facilities. In marketing and distribution, technical and non-technical sales representatives, retail sales managers, and store managers are growing occupations, while real estate agents and brokers, purchasing agents, reservation and ticketing agents, and material handlers jobs are on the decline. In precision production, the number of positions for tool and die makers, drill press operators, welders, and a variety of machinists and machine tool operators is declining, while new programs are being developed to educate and train computer-aided design (CAD), computer-aided manufacturing (CAM), and computerized numerical control operators and maintenance personnel.

Statewide data, as reported here, mask important differences between and among districts. The curricular configuration for each college needs to be responsive to the unique labor market within the college district. For a listing of curricula approved for each community college, see Table III-1 in Data and Characteristics of the Illinois Public Community College System, March 1984.

Curriculum Enrollment and Completer Trends

As Table 2 on the next page indicates, there was a decrease in total opening headcount enrollment in the Illinois public community colleges in Fall 1983. Interpretation of trends from this table is difficult, however, due to the 69 percent decrease in the "undeclared/unknown" category between Fall 1979 and Fall 1983. In Fall 1979 and 1980, the "unknown" category was used to classify students who were "undeclared," that is, students who had not declared their intent to pursue a particular curriculum. Starting with Fall 1981, all "undeclared" students were to be reported as course enrollees in the appropriate classifications. Since Fall 1982 colleges are increasingly classifying students into categories that more accurately and appropriately identify their intent.

Nevertheless, Table 2 indicates that fall enrollments in occupational curricula have remained relatively stable, both in numbers of students and in the percentage of the total enrollment, since Fall 1980. The primary enrollment decrease in Fall 1983 occurred in the remedial, adult basic and secondary, and general studies categories. Due to the increasing use of an open entry/exit format for many courses in the remedial and adult basic/secondary education categories, a number of students may not have registered by this tenth-day count and, thus, are not included here. Enrollment in the vocational skills category may have been influenced by the transition from the federal Comprehensive Employment Training Act (CETA) to the federal Job Training Partnership Act (JTPA) program as of October 1, 1983.

Table 3 on page 6 compares the number of students who received occupational associate degrees and certificates in FY 1982 and in FY 1983, as reported annually to ICCB. The greatest increase was in the number of associate degrees awarded, an increase of nearly 20 percent, with an overall increase of more than 12 percent.

Table 2

COMPARISON OF OPENING FALL HEADCOUNT ENROLLMENTS IN
INSTRUCTIONAL PROGRAM AREAS IN PUBLIC COMMUNITY COLLEGES IN ILLINOIS
FROM FALL 1979 TO 1983

	1979	1980	1981	1982	1983
Pre-baccalaureate/Transfer	92,138 (28.5%)	103,143 (28.7%)	112,292 (29.0%)	117,898 (30.0%)	132,304 (37.1%)
Percent Change		11.9%	8.9%	5.0%	12.2%
Occupational	96,680 (29.9%)	108,252 (30.1%)	111,345 (28.8%)	118,046 (30.4%)	121,988 (34.2%)
Percent Change		12.0%	2.9%	6.0%	3.3%
Vocational Skills	10,217 (3.2%)	12,834 (3.6%)	20,228 (5.2%)	21,834 (5.6%)	16,525 (4.6%)
Percent Change		25.6%	57.6%	7.9%	-24.3%
Remedial/ABE/ASE	32,845 (10.1%)	41,734 (11.6%)	48,443 (12.5%)	43,461 (11.2%)	29,869 (8.4%)
Percent Change		27.1%	16.1%	-10.3%	-31.3%
General Studies	39,893 (12.3%)	40,655 (11.3%)	54,637 (14.1%)	57,577 (14.8%)	40,033 (11.2%)
Percent Change		2.4%	34.4%	5.4%	-30.5%
"Undeclared/Unknown"	52,080 (16.1%)	52,429 (14.6%)	39,568 (10.2%)	29,006 (7.5%)	15,924 (4.5%)
Percent Change		0.7%	-24.5%	-26.7%	-45.1%
TOTAL	323,653	359,047	386,513	387,822	356,643
Percent Change		10.9%	7.6%	0.3%	-8.0%

Source: E-1 Cards

Table 3

COMPARISON OF OCCUPATIONAL CURRICULUM COMPLETERS
(FY 1982 and FY 1983)

Degree/Certificate Type	FY 1982	FY 1983	Percent Change
Associate Degrees*	8,916	10,677	19.8
Certificates of One Year or More	4,000	4,260	6.5
Certificates of Less Than One Year	3,407	3,118	-8.5
Sub-Total	16,323	18,055	10.6
Certificates of Unspecified Length		267	
TOTAL	16,323	18,322	12.2

*Occupational associate degrees include the Associate in Applied Science, the Associate in Business Administration, and the Associate in Nursing.

Occupational and Vocational Skills Courses and Credit Hours

As indicated in Table 4 on the next page, the number of individual courses offered by the Illinois public community colleges in categories that may be related to career preparation increased by 10 percent. Although the greatest increase was in number of remedial and ABE/ASE courses, many of these courses are offered for one or two semester credit hours each, while most academic and occupational courses are offered for three or four semester credit hours each. The growth in these areas is probably also due in part to the recent recognition within the system that a greater emphasis on providing basic skills education, including English as a Second Language training, is a necessary and integral part of preparing individuals both for jobs and for further education. The growth in number of vocational skills courses offered has been due, in part, to the colleges' involvement in providing education and training for the new federal Job Training Partnership Act program beginning October 1, 1983.

The growth in number of academic courses and the slight decline in number of occupational courses are due, in part, to the development and implementation of the Generic Course List as of July 1, 1983. During its development, all courses were reexamined and some were reclassified in order to assure that similar courses were classified consistently from college to college. The number of courses in the two categories combined increased 4.2 percent over the past three years.

Table 4

COMMUNITY COLLEGE COURSES BY CATEGORY
(December 1980 to January 1984)

Course Categories	Number of Individual Courses Dec. 1980	Jan. 1984	Percent Change	Generic Course List Entries
Academic/ Transfer	14,674	16,673	13.6	684
Occupational/ Applied	20,140	19,603	-2.6	1,247
Vocational Skills	4,362	5,662	29.8	512
Remedial/ ABE/ASE	1,166	2,414	107.0	35
TOTAL	40,342	44,352	9.9	2,478

Table 5 on the next page compares the number of course credit hours produced in each of the seven ICCB funding categories from FY 1980 through FY 1983. The number of total credit hours generated increased by 26 percent over this period, with the greatest growth in the number of remedial credit hours (67 percent). Within the three occupational and vocational areas, the highest rates of growth were in technical (41 percent) and health (40 percent) occupations credit hours. Between FY 1980 and FY 1983, the proportion of credit hours produced in the academic/transfer category declined from 42.6 percent to 41.3 percent of the total, while the proportion of credit hours produced in the three occupational/vocational funding categories combined increased from 31.8 percent to 32.2 percent of the total number of credit hours produced within the system.

Cost of Occupational Programs

As indicated on Table 6 on page 9, the statewide average net instructional unit cost to produce one credit hour in each of the three occupational/vocational funding categories increased from FY 1979 to FY 1983. Between FY 1979 and FY 1983, the net instructional unit cost to produce a business/service credit hour increased by 18 percent, the technical net instructional unit cost increased by 13 percent, and the health instructional unit cost increased by 19 percent.

Table 5

COURSE CREDIT HOURS PRODUCED BY FUNDING CATEGORY*
(FY 1980 through FY 1983)

Funding Categories	FY80	FY81	FY82	FY83	Percent Change FY80 to FY83
Academic/Transfer	2,244,228	2,489,848	2,663,978	2,750,127	22.5
Business/Service	714,229	782,544	790,001	789,359	10.5
Technical	704,339	817,752	906,328	990,766	40.6
Health	257,489	306,097	336,778	359,201	39.5
Remedial	102,211	134,094	153,004	170,404	66.7
ABE/ASE	910,064	1,107,625	1,299,624	1,192,434	31.0
General Studies	330,108	381,724	450,392	398,908	20.8
TOTAL	5,262,668	6,019,684	6,600,105	6,651,199	26.4

*Source: Unit Cost Credit Hours

Table 6

OCCUPATIONAL NET INSTRUCTIONAL UNIT COST AND
ICCB CREDIT HOUR GRANT RATES
(FY 1979 THROUGH FY 1985)

	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983*	FY 1984*	FY 1985**
Business and Service							
Unit Cost	$60.94	$64.78	$67.33	$68.51	$71.77	$	$
Credit Hour Rate	15.59	16.39	17.67	17.41	16.32	11.21	11.80
Technical							
Unit Cost	74.31	77.75	80.87	83.74	84.02		
Credit Hour Rate	26.98	25.22	28.61	27.11	27.51	26.92	24.92
Health							
Unit Cost	91.16	101.42	107.63	108.00	108.11		
Credit Hour Rate	42.56	41.73	42.07	47.38	50.30	51.92	50.75

* These credit hour grant rates were approved by the General Assembly; however, credit hour grants were reduced to stay within the appropriation for that fiscal year.

** Allocation of Governor's Fiscal Year 1985 Budget.

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It is this statewide average net instructional unit cost that is used in the calculation of the ICCB credit hour grant rate two years later, i.e., the FY 1981 unit cost served as the base for calculating the ICCB credit hour grant rate in FY 1983. The obvious change in the credit hour grant rates for FY 1984 reflect the shift by the Illinois State Board of Education Department of Adult, Vocational and Technical Education (ISBE/DAVTE) to a flat-rate, from a differential, funding formula, effective for FY 1984. Since the credit hour grant rate is a residual calculation, the monies available per credit hour from the ISBE/DAVTE are subtracted in the calculation of the credit hour grant rate.

The statewide total net instructional cost for community college occupational/vocational education in FY 1983 was $188,925,072, which was nearly 40 percent of the total net instructional dollars spent by the community colleges. The total dollar cost of offering occupational curricula and courses increased by 57 percent from FY 1979 to FY 1983.

Conclusions

The Illinois public community colleges currently offer 3,467 individual curricula within 258 discrete occupational fields. Within the past 18 months, slightly more curricula have been withdrawn than added, with the office occupations category showing a net gain of 36 curricula, and the categories of home economics occupations and protective services each showing a net loss of 17 curricula.

Opening fall term enrollment of students declaring an occupational curriculum has remained relatively constant at approximately one-third of the total enrollment for the past several years. The reported number of associate degree graduates increased by nearly 20 percent from FY 1982 to FY 1983, while the total number of occupational program completers -- degrees and certificates -- increased 12 percent.

While the number of courses classified as occupational declined somewhat due to reclassification in conjunction with the development of the Generic Course List, the number of credit hours generated in the three occupational/vocational funding categories has increased an average of 28 percent from FY 1980 to FY 1983. The unit cost per credit hour also increased during this same period, but at a lesser rate from a high of 11 percent in the business/service category to a low of seven percent in the health funding category.

The array of occupational curricula and courses offered by the Illinois public community college system changes continually as new curricula are approved and obsolete curricula are withdrawn in response to -- and in anticipation of -- changing labor market conditions in each district and in the state as a whole. The data presented in this report can serve as a baseline from which to measure change in the future.

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